

REMARKS

The May 7, 2007, Office action required corrected drawings, objected to claims 5-13, and rejected claims 1-4, and 12-13. To expedite prosecution of this case, this Amendment and Response amends the drawings and claims 1-13; all without prejudice or disclaimer. Applicants reserve the right to pursue the subject matter of the original claims in co-pending applications. Support for the amendments may be found in the originally filed specification, claims and figures; no new matter has been introduced. After entry of this amendment, claims 1-13 remain pending in the application including 3 independent claims. In view of the amendments and remarks presented in this paper, reconsideration of the application is respectfully requested.

Objections to the Drawings

In the May 7, 2007, Office action, the Examiner objected to drawing figures 1-3 on the basis that it should be designated by a legend such as --Prior Art--. Applicants have submitted replacement drawing sheets 1/6, 2/6, and 3/6 containing new corrected drawing Figures 1-3, which are each now designated as --Prior Art--. Accordingly, Applicants request that the objection be withdrawn.

Claim Objections

In the May 7, 2007, Office action, the Examiner objected to claims 5-13 as being in improper form because a multiple dependent claim cannot depend from another multiple dependent claim. Applicants have amended claims 3-5, 7, and 9-12 to eliminate all of the multiple dependencies. Reconsideration and withdrawal of the objection to claims 5-13, as well as substantive examination of claims 5-13, are requested.

Claim Rejections under 35 USC §112

In the May 7, 2007, Office action, the Examiner rejected claims 12-13 under 35 USC 112, second paragraph, as being indefinite. Applicants have amended claims 12-13 to

correct the deficiencies. Reconsideration and withdrawal of these rejections of claims 12-13, as well as substantive examination of claims 12-13, are requested.

Claim Rejections under 35 USC §102

In the May 7, 2007, Office action, the Examiner rejected claims 1-4 under 35 USC 102(b) as being anticipated by Smith (U.S. Patent No. 4,531,672). For the following reasons, reconsideration and withdrawal of these rejections are respectfully requested.

Applicants have amended claim 1 to emphasize that each cam has a surface shaped such that the return stroke of its associated plunger is intermittently interrupted to define a plurality of steps that are each characterized by an interval of discontinued plunger movement, during which interval the pumping plunger is substantially stationary. This amendment finds full support in the originally filed claims, specification, or drawings. Applicant's claimed invention is distinct because neither Smith nor any other prior art reference discloses a pump wherein each cam has a surface shaped such that the return stroke of its associated plunger is intermittently interrupted to define a plurality of steps that are each characterized by an interval of discontinued plunger movement, during which interval the pumping plunger is substantially stationary.

Although the Examiner asserts that the cams taught by Smith are "inherently capable" of performing as claimed by Applicants, Applicants respectfully submit that Smith provides no such teaching or suggestion to provide a cam shaped so as to provide a plurality of steps during the return stroke of the plunger. (See, e.g., Smith, Figures 1 and 5). Moreover, Applicants respectfully submit that the above-described limitation is not merely a functional limitation but rather serves to define the surface shape of the cam (i.e., its radial variation). Accordingly, Applicants respectfully submit that claim 1, as amended, is allowable. Since claims 2-4 depend from amended claim 1, claims 2-4 are also allowable. Reconsideration and withdrawal of these rejections of claims 1-4 are requested.

CONCLUSION

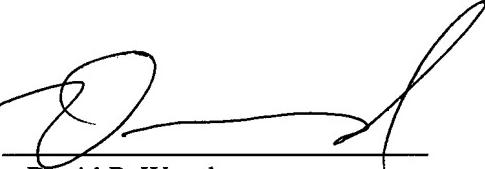
In view of the foregoing, Applicants request acceptance of the corrected drawings; the withdrawal of the objections to claims 5-13, the withdrawal of the rejections of claims 1-4 and 12-13; and the substantive examination of claims 5-13. Reconsideration of the application and allowance of all pending claims is earnestly solicited. Accordingly, the Examiner is requested to reconsider and allow claims 1-13 and to pass the case to issue.

Should the Examiner wish to discuss any of the above in greater detail or deem that further amendments should be made to improve the form of the claims, the Examiner is invited to contact the undersigned at the Examiner's convenience.

Please charge any necessary fees, including any extension of time, or any other fee deficiencies to Delphi Technologies, Inc., Deposit Account No. 50-0831.

Respectfully submitted,

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